*Read before the Medical and Chirurgical Faculty of Maryland, Annual Session, April, 1874.*

# Hypodermic Injection of Ergot in Post-Partum Hemorrhage,

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I hazard nothing in saying that violent post-partum hemorrhage is one of the most serious accidents that come under the care of the physician. Anything, therefore, that suggests additional means of relief in this alarming complication deserves careful consideration. The known effects of ergot in promoting uterine contraction long since determined me to try its hypodermic use whenever I was called upon to treat post-partum hemorrhage.

The first opportunity that presented itself was in the case of Mrs. R., a young woman of fine physique, in good health, and who had no untoward symptoms during her pregnancy. Mrs. R. was confined with her first child in October, 1873. She had a long, exhausting labor, during which I gave four or five drachm doses of fluid extract of ergot, with very little effect. After the head had remained for some time in the cavity of the pelvis without apparent progress, I determined to apply the forceps. Chloroform was administered and the child was extracted without difficulty.

The placenta was expelled in due time, and everything progressed satisfactorily, until suddenly, without appreciable cause, the uterus became completely relaxed, and produced a profuse hemorrhage, which exhausted the patient with great rapidity. After using the customary remedies, such as pressure, insertion of the hand into uterus, ice externally, and ice in the uterus, &c., without the slightest effect, I injected half a drachm of fluid extract of ergot in the inside of the left thigh. Immediately I again thrust my hand into the uterus, and my anxiety was relieved by discovering that the uterus was beginning to contract vigorously, and it promptly expelled my hand from its cavity.

The contraction remained firm, and the hemorrhage was completely stopped. The convalescence of this patient was rapid and satisfactory.

The second case to which I call attention is that of a lady about 35 years of age, of medium height, frail figure, and rather contracted pelvis. She has been married ten years. Prior to the confinement in question, she had but one child; which was born with extreme difficulty about eight years ago. During her recent pregnancy, her general health was good. Towards the latter portion of her pregnancy she suffered very much from pain in the right hypochondriac region, which was very violent up to the time of her confinement, and totally forbade her lying on the left side. Her labor was long and severe. During the last few hours of it I kept her more or less under the influence of chloroform, and occasionally gave ergot to prevent the chloroform diminishing the activity of the pains. No progress being made, I applied the forceps and delivered the child. After waiting a short time for the expulsion of the placenta, I endeavored to remove it by traction upon the cord, which unfortunately broke. Examination then revealed that the placenta was adherent over its entire surface. I again administered chloroform, and after prolonged and tedious effort succeeded in detaching the placenta. The uterus contracted well.

I went across the room to superintend an inefficient nurse, but in a little while was recalled to the bedside of the patient by a gush of blood which was distinctly audible. The flooding was alarmingly copious.

Remembering my experience in the former case, I immediately injected half a drachm of fluid extract of ergot on the inside of the thigh.

The flooding was promptly arrested, and did not return. My patient was prostrated to such a degree, however, that for several hours she could not make the slightest movement without producing serious attacks of syncope.

This condition was relieved by a few hypodermic injections of brandy.

This patient improved rapidly, and was soon restored to her usual health.

The third case occurred on the 13th of March, 1874. Mrs. S., about 35 years old, and mother of several children, was a patient of Dr. Whitridge.

Mrs. S. had several severe uterine hemorrhages during the latter part of her pregnancy, but was always relieved by a few days' rest in bed. Dr. Whitridge was sent for early on the 13th March; but before he reached the house, the patient was bleeding so profusely that she sent for Dr. Hartman, who lives in the immediate neighborhood. Dr. Hartman soon discovered that he had to deal with a placenta prævia. He promptly "turned" and delivered the child and the placenta. The patient seemed to be doing well, and the Doctor went home. Shortly afterward, Dr. Whitridge arrived and found Mrs. S. flooding to such a degree as to render her pulse almost imperceptible. The Doctor resorted to the usual treatment without avail. He then injected diluted subsulphate of iron into the vagina and uterus. He then sent for me to see her in consultation with him. In the meantime, finding that the flooding still continued, he injected fluid extract of ergot hypodermically. This injection arrested the hemorrhage before I reached the house. Her exhaustion was so extreme that we administered a second hypodermic injection of ergot to guard against the recurrence of hemorrhage. The hemorrhage did not return, and the patient was restored to health by liberal diet and tonics.

I have thus given three cases of post-partum hemorrhage which present three different conditions.

The first was a case of uncomplicated labor, but slow and tedious, producing great fatigue, which was the probable cause of the subsequent uterine relaxation and the hemorrhage. The administration of chloroform may also have been a predisposing cause of the hemorrhage, although I was careful, as I always am, to accompany the use of chloroform with the internal administration of ergot.

In the second case, chloroform was also administered, and its use was much prolonged by the necessity of tearing away the adherent placenta.

The prolonged use of chloroform and the adherent placenta were doubtless the causes of the flooding in this case, nor was it prevented by the free use of ergot by the stomach.

In the third case no chloroform was used, yet the flooding was quite as great as in either of the other cases.

In the first and third cases, various means were resorted to

without the slightest effect, until ergot was given hypodermically. In the second case, nothing was used but the hypodermic injection of ergot.

In these three cases the effect of the hypodermic was almost instantaneous, and it was permanent.

It seems to me, therefore, that the hypodermic used of ergot offers a safe, prompt, and efficient remedy for post-partum hemorrhage; and I earnestly advise its administration.

In the cases here reported I used the fluid extract of ergot. It produced no abscesses, and was entirely satisfactory in its effects. According to the experiments of Dr. Squibb, of Brooklyn, ergotine does not represent the full therapeutic value of ergot, and therefore cannot be relied upon. Dr. Squibb, at the suggestion of Dr. Marion Sims, has made a *solid extract* which is very efficient, and has been frequently used in New York and elsewhere for the treatment of uterine fibroids. The solid extract is rendered fluid by "rubbing it up" with water, in the proportion of one grain of extract to one minim of water, when it is available for hypodermic use.

This is doubtless the best preparation of ergot, and should be preferred when it is accessible. The fluid extract can always be procured, and its effects are so prompt and efficient that I have no hesitation in advising its administration whenever the solid extract cannot be obtained.